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## PATENT COOPERATION TREATY

## PCT

## INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference 0000053226	<b>FOR FURTHER ACTION</b> See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. PCT/EP2003/000921	International filing date (day/month/year) 30 January 2003 (30.01.2003)	Priority date (day/month/year) 04 February 2002 (04.02.2002)
International Patent Classification (IPC) or national classification and IPC C09B 67/20		
Applicant BASF AKTIENGESELLSCHAFT		

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.

2. This REPORT consists of a total of 5 sheets, including this cover sheet.

This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

These annexes consist of a total of \_\_\_\_\_ sheets.

3. This report contains indications relating to the following items:

- I  Basis of the report
- II  Priority
- III  Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- IV  Lack of unity of invention
- V  Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- VI  Certain documents cited
- VII  Certain defects in the international application
- VIII  Certain observations on the international application

Date of submission of the demand 27 June 2003 (27.06.2003)	Date of completion of this report 14 May 2004 (14.05.2004)
Name and mailing address of the IPEA/EP	Authorized officer
Facsimile No.	Telephone No.

## INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/EP2003/000921

## I. Basis of the report

## 1. With regard to the elements of the international application:\*

the international application as originally filed

the description:

pages \_\_\_\_\_ 1-16 \_\_\_\_\_, as originally filed  
 pages \_\_\_\_\_ \_\_\_\_\_, filed with the demand  
 pages \_\_\_\_\_, filed with the letter of \_\_\_\_\_

the claims:

pages \_\_\_\_\_ 1-10 \_\_\_\_\_, as originally filed  
 pages \_\_\_\_\_, as amended (together with any statement under Article 19  
 pages \_\_\_\_\_, filed with the demand  
 pages \_\_\_\_\_, filed with the letter of \_\_\_\_\_

the drawings:

pages \_\_\_\_\_ \_\_\_\_\_, as originally filed  
 pages \_\_\_\_\_, filed with the demand  
 pages \_\_\_\_\_, filed with the letter of \_\_\_\_\_

the sequence listing part of the description:

pages \_\_\_\_\_ \_\_\_\_\_, as originally filed  
 pages \_\_\_\_\_, filed with the demand  
 pages \_\_\_\_\_, filed with the letter of \_\_\_\_\_

2. With regard to the language, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.  
 These elements were available or furnished to this Authority in the following language \_\_\_\_\_ which is:

the language of a translation furnished for the purposes of international search (under Rule 23.1(b)).  
 the language of publication of the international application (under Rule 48.3(b)).  
 the language of the translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

contained in the international application in written form.  
 filed together with the international application in computer readable form.  
 furnished subsequently to this Authority in written form.  
 furnished subsequently to this Authority in computer readable form.  
 The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.  
 The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4.  The amendments have resulted in the cancellation of:

the description, pages \_\_\_\_\_  
 the claims, Nos. \_\_\_\_\_  
 the drawings, sheets/fig. \_\_\_\_\_

5.  This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).\*\*

\* Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rule 70.16 and 70.17).

\*\* Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.

## INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International Application No.  
PCT/EP 03/00921

## V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

## 1. Statement

Novelty (N)	Claims	1-10	YES
	Claims		NO
Inventive step (IS)	Claims	1-10	YES
	Claims		NO
Industrial applicability (IA)	Claims	1-10	YES
	Claims		NO

## 2. Citations and explanations

Reference is made to the following documents:

D1: DE-A-199 05 269

D2: DE-A-198 01 759

D3: US-A-5 282 898

The subject matter of claims 1 to 10 appears to meet the requirements of PCT Article 33(1).

1. The problem addressed by the present application is considered to be that of preparing novel [solid] pigment preparations whose coloristic properties and dispersibility are comparable to those of known liquid preparations, but which require no further stabilization additives, such as agents that prevent drying up, agents for increasing resistance to freezing, thickeners and antiskinning agents, and which are easier to handle.

One solution to this problem is provided by pigment preparations which contain as essential components (A) 60 to 90 wt % of at least one **pigment**, (B) 10 to 40 wt % of at least one **nonionic** polyether-based surfactant additive, and (C) 0.1 to 10 wt % of at least one **anionic** surfactant additive based on sulphonates, sulphates, phosphonates or

phosphates, the total of the weight percentages not exceeding 100 wt %.

1.1 The technical problem addressed by D1 is the production of pigment preparations whose application properties are comparable or superior to those of liquid preparations and which do not have the disadvantages associated with the agents that prevent drying up or agents for increasing resistance to freezing [e.g. pollution caused by volatile organic solvents; impairment of the rheological behaviour of the preparations by polymeric, non-volatile additives].

Example 3 describes a composition containing a thickener in the form of xanthan gum (0.2 parts by weight) and 1.54 parts by weight of an oxalkylation product (castor oil/40 mol ethyleneoxide units; corresponds to component (B) in the application) and a conversion product of phosphonosuccinic acid ester/polyethylene glycol [molecular weight = 400]/lauryl alcohol; however, the latter is not anionic but is present in the esterified form. Therefore claim 1 of the present application is novel with respect to D1 (presence of a thickener; lack of an **anionic** surfactant additive (component C)). A person skilled in the art would not see any reason to dispense with the thickener or saponify the ester in order to solve the abovementioned problem. Claim 1 is therefore inventive with respect to D1.

1.2 D2 claims **aqueous** pigment preparations [ $\geq$  50 parts water] containing a) at least one pigment, b) at least one condensation product based on A) sulphonated aromatic compounds, B) aldehydes and/or ketones and optionally C) one or more compounds selected from the group comprising non-sulphonated aromatic compounds, urea and urea

derivatives, and c) at least one polyether polyol with a boiling point at normal pressure of 250°C. The current claim 1 is thus novel with respect to D2.

The problem addressed by the present application is that of meeting the need for new [solid] pigment preparations whose coloristic properties and dispersibility are comparable to those of liquid preparations. However, different demands are made in principle on liquid preparations on the one hand and solid preparations on the other [e.g. storage, incorporation into the medium being used, concentration of the components, type of packaging, transportation, etc.]. The technical problem set out in D2 is thus different. Furthermore, the examiner agrees with the applicant that simply drying the liquid preparations does not produce solid pigment preparations having comparable properties when used (page 1, lines 38 to 41, of the description). Therefore claim 1 also appears to be inventive with respect to D2.

2. Consequently claim 1 is novel and inventive with respect to D1 and D2, as are independent method claims 7, 8 and 10.